



## European Marine Biological Resource Centre Biobank (EBB)

WP 2 Project Communication

Text for EBB press kit

## European Blue Biobank (EBB)

EBB website link: [www.bluebiobank.eu](http://www.bluebiobank.eu)

Twitter account: @EInterreg

### CONTEXT

Habitat degradation, over-exploitation, alien species, pollution and climate change are affecting ecosystems across the globe. Biobanks contribute to the conservation of marine diversity by complementing traditional in-situ conservation techniques with ex-situ methods that are safe and reproducible for short, medium, and long-term storage of biological specimens.

Marine organisms are extremely diverse and represent a huge reservoir for natural product discovery. As acknowledged by the Smart Specialization Strategies of European coastal regions, Marine Biological Resources (MBRs) and their biotechnological exploitation are one of the main services provided by coastal ecosystems, having a great potential to promote regional economic development and employment through blue biotechnology, and thus to contribute to growth and cohesion. Biobanks provide MBRs to academic and industrial researchers, becoming the backbone for the search of unique marine genes, bio-actives and biomaterials, promoting the biobased blue economy.

The leading marine biobanks in Europe are located in the Atlantic Area and are part of the European Marine Biological Resource Centre (EMBRC-ERIC), a distributed Research Infrastructure included in the European Strategic Roadmap for Research Infrastructures since 2008.

### OUR MISSION

The EBB project contributes to the protection of marine biodiversity through the establishment of the European Blue Biobank, a world class centrally curated marine biobank operated by EMBRC-ERIC that supports Marine Biological and Ecological Research, Development and innovation by facilitating access to Marine Biological Resources.

Through the work done in the EBB, EMBRC-ERIC leads the first initiative to propose practical long-term transnational coordination of marine biobanks. It facilitates the access to a common registry of marine bio-specimens, stimulating future work to increase the diversity and quality of Marine Biological Resources made available to user communities and facilitating their biotechnological valorization.

The work carried out in the EBB is contributing to setting the standard for harmonized operation of the EMBRC-ERIC distributed marine biobanking facilities, by:

- Developing new technological tools and common procedures for the ex-situ maintenance of diverse groups of Marine Biological Resources; and
- Harmonizing the transregional application of the regulations on access to genetic resources and sharing the benefits of their use (i.e. ABS regulations)

## APPROACH

ABS regulations stem from the Nagoya Protocol, which is a supplementary agreement to the Convention on Biological Diversity (CBD). It was adopted on 29 October 2010 and entered into force on 12 October 2014. Its aim is the implementation of one of the three objectives of the CBD: the fair and equitable sharing of benefits arising out of the utilization of genetic resources, contributing to the conservation and sustainable use of biodiversity.

The EBB sets the basis for EMBRIC-ERIC to promote consensual national implementation of Access and Benefit Sharing regulations and to facilitate compliance with ABS to any academic or commercial researcher accessing MBRs through the European Blue Biobank, minimizing bureaucratic burden on end users.

In order to ensure a realistic approach and the accomplishment of objectives, the EBB focuses on the EU Regulation on ABS (EU 511/2014) and its recent integration into national laws, to support clear and effective implementation of the principles of the Nagoya Protocol at the domestic level.

The project brings together end-users (researchers from industry and academia), providers (MBR biobanks) and Competent National Authorities (CNAs) to work together on defined use-cases, promoting consensual national implementation of ABS regulations.

## CONSORTIUM

The EBB consortium is composed by 12 partners and 8 associated partners.

### Biobanks

The EBB involves biobanks and Culture Collections in all the Atlantic EU member states (France, Ireland, Portugal, Spain, and UK), and one associated state (Norway). Even though located outside the Atlantic Area, the Norwegian biobank is part of the EMBRIC-Norway Node, and contributes key expertise in coordinated operation in compliance with ABS regulations, and allow for a broader coverage of European marine ecosystems and biological resources.

Universidade de Vigo (UVigo) Spain [Project leader]  
Centro Interdisciplinar de Investigação Marinha e Ambiental (CIIMAR) Portugal  
Universidad del País Vasco (UPV/EHU) Spain  
Universidade do Algarve (UALG) Portugal  
Sorbonne Université (SU) France  
Havforskningsinstituttet (IMR) Norway  
Marine Biological Association of the United Kingdom (MBA) UK  
Ollscoil na hÉireann Gaillimh (NUIG) Ireland  
Scottish Association for Marine Sciences (SAMS) UK  
National Collection of Industrial and Marine Bacteria (NCIMB) UK

### Clusters

The EBB consortium includes end users associations (i.e. clusters) in four Atlantic Area counties (France, Portugal, Spain, and UK). The project provides the framework for transnational comparison and cross-fertilization of the knowledge transfer practices of these clusters.

Fórum Oceano – Associação da Economia do Mar, Portugal  
Pole Mer Bretagne Atlantique (PMBA) France  
Asociación Española de Fabricantes de Conservas de Pescado y Mariscos - Centro Técnico Nacional para la Preservación de Productos Pesqueros (ANFACO-CECOPESCA) Spain  
University of Strathclyde - Industrial Biotechnology Innovation Center (IBioIC) UK

### Competent National Authorities (CNAs)

Competent National Authorities (CNAs) responsible for the implementation of the EU Regulation on ABS are involved in the EBB project. CNAs will directly participate in, and benefit from, practical use-cases on the national implementation of the EU regulation.

Ministerio de Agricultura y Pesca, Alimentación y Medio Ambiente (MAPAMA) Spain  
Instituto da Conservação da Natureza e da Biodiversidade (ICNF) Portugal  
The Department for Business, Energy and Industrial Strategy (BEIS) UK

### Companies

The EBB consortium brings on-board small-scale companies working with MBRs in the field of biotechnology. Their engagement is key to understand the needs and limitations that private companies encounter when using MBRs for commercial purposes, and raising awareness of how EMBRC-ERIC can help them to overcome these barriers.

AQUALGAE Spain  
Glycomar UK  
Glantreo Ireland

## RESOURCES THAT ARE DELIVERED BY EBB PROJECT

### For Academia

Tools and common procedures for the *ex-situ* maintenance of Marine Biological Resources will be developed, and harmonization in the application of procedures to comply with regulations on access to genetic resources will be ensured. The EMBRC-ERIC, through the European Blue Biobank provides academia with easy access to marine biodiversity, its associated data, and extractable products.

Main resources for academia:

- E-tools for biobank management and users' access to MBRs.
- Common methodologies for long-term *ex-situ* preservation of MBRs.
- Quality Management System for biobanks.
- Best Practice Guidelines on Access and Benefit Sharing (ABS).
- Access System to the European Blue Biobank.

### For Industry

Through the work done in the European Blue Biobank, the EMBRC-ERIC supports industry end users on accessing Marine Biological Resources in compliance with ABS regulations, removing barriers for commercial use of MBRs and biotechnological innovation.

Main resources:

- End-users practical use-cases: practical implications for end-users of ABS compliance procedures when accessing MBRs
- Best Practice Guidelines on Accessing MBRs for Commercial or close-to-market research.
- Research under ABS legislation.
- Access System to the European Blue Biobank.

### For Policy

The EBB project can support Competent National Authorities (CNAs) to achieve a smooth implementation at the national level of the EU Regulation 511/2014 on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS regulation).

Main resources:

- End-users practical use-cases: practical implications for end-users of ABS compliance procedures when accessing MBRs.
- Research under ABS legislation.